



Commissioning through *“EDF Tower”* construction by Michel Rouillot Architect D.P.L.G.

Proceedings of the Fourth International Conference on Advanced Building Operations, Paris, France, October 18-19, 2004

What is a building project ?

ESL-IC-04-10-16



A spatial answer for a work structure



A very strong relationship between many building participants

ESL-IC-04-10-16



The production of the building

To produce a building means constructing or rehabilitating a structure in a way to make it profitable for owner and to satisfy the inhabitant !

Such an operation entails a complex *modus operandi* consisting in determining the constraints that limit it, the authorizations required in order to put into place the necessary financing, to define the operating processes, choose the architectural team to be able to conclude the project within the specified framework.

In fact, there are two types of architecture !



What is the essential difference between these two structures ?



Proceedings of the Fourth International Conference for European Building Operations, Paris, France, October 18-19, 2004

Answer



*auto-construction
& professionalism*

Proceedings of the Fourth International Conference for Enhanced Building Operations, Paris, France, October 18-19, 2004





Proceedings of the Fourth International Conference for Enhanced Building Operations, Paris, France, October 18-19, 2004

Monumental Architecture



Proceedings of the Fourth International Conference for Enhanced Building Operations, Paris, France, October 18-19, 2004

indigenous architecture

michel rouiller architecte d.p.

« *Indigenous* » Architecture ?

Architecture essentially consist in erecting buildings within in a cultural and given technical framework.

The construction of a structure arises from the individual or collective needs, from the use (protection from the elements) or symbolcal (place of worship).

Historiclly urbanisim was not allways controled by an architect, but it is the result of popular architecture.

The pourcentage of buildings constructed by architects inthe world is estimated to be only 5%, most of which were fabricated by inhabitants or artisans.

« *Indigenous* » Architecture ?

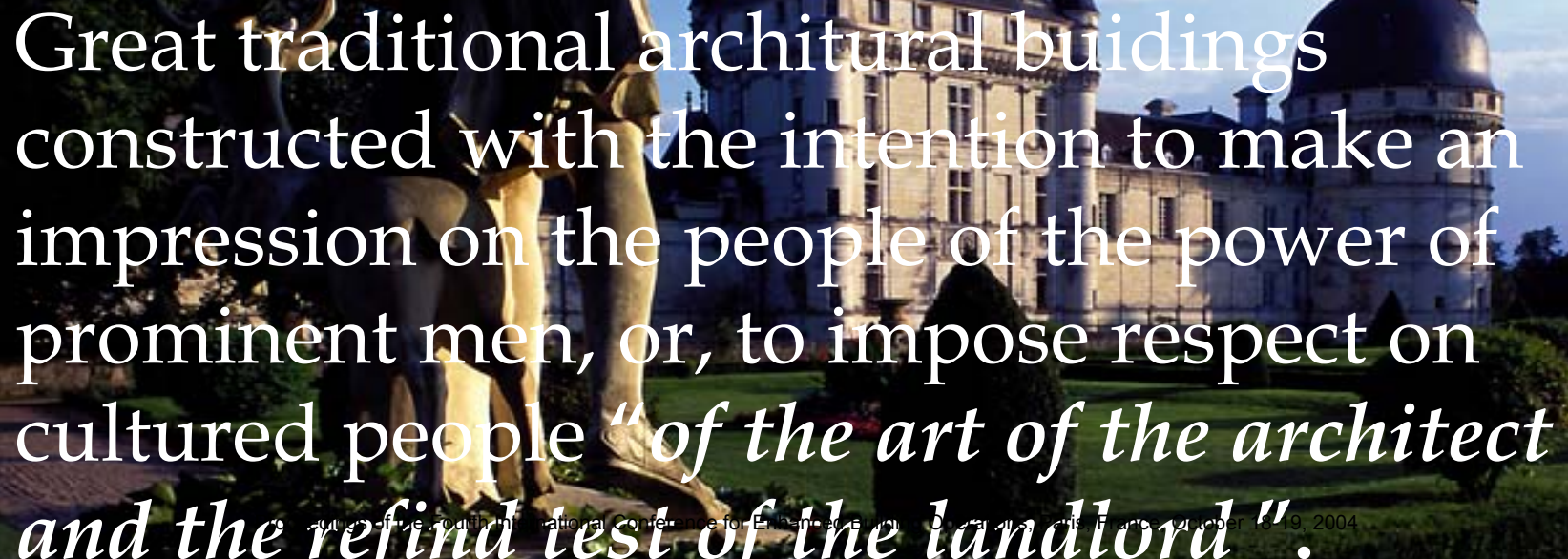
*Built only
with material
found locally.*



*Always
corresponding
to the needs of
the inhabitants
because it
adapts to its
growth*

*«self-construction»
by using simple
technics*

"monumental" Architecture ?



Great traditional architectural buildings constructed with the intention to make an impression on the people of the power of prominent men, or, to impose respect on cultured people *"of the art of the architect and the refind test of the landlord"*.

© 2004 by the Fourth International Conference for European Business Development, Paris, November 18-19, 2004

Pharaoh : inventor of the landlord - architect relationship

ESL-IC-04-10-16



Proceedings of the Fourth International Conference for Enhanced Building Operations, Paris, France, October 18-19, 2004

What is new since the pyramid ?



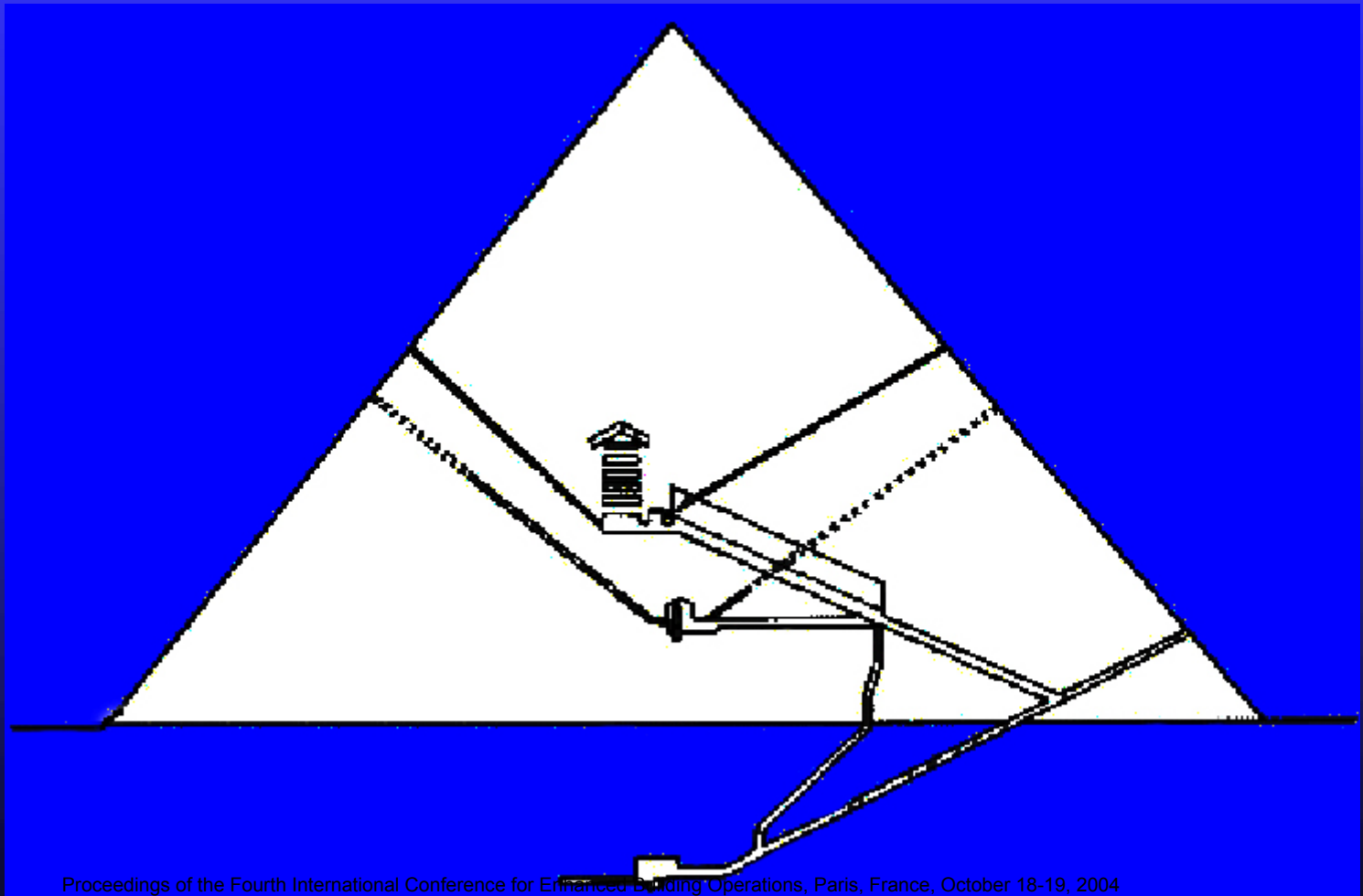
Pharaoh knows what he **wants**

→ He was the landlord

→ He selected an Architect

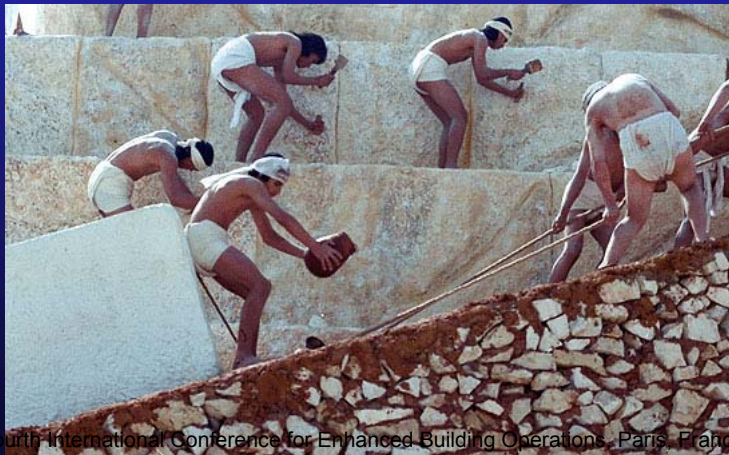
No confusion, no disorder, a prominent
role for each one!

What is new since the pyramid ?



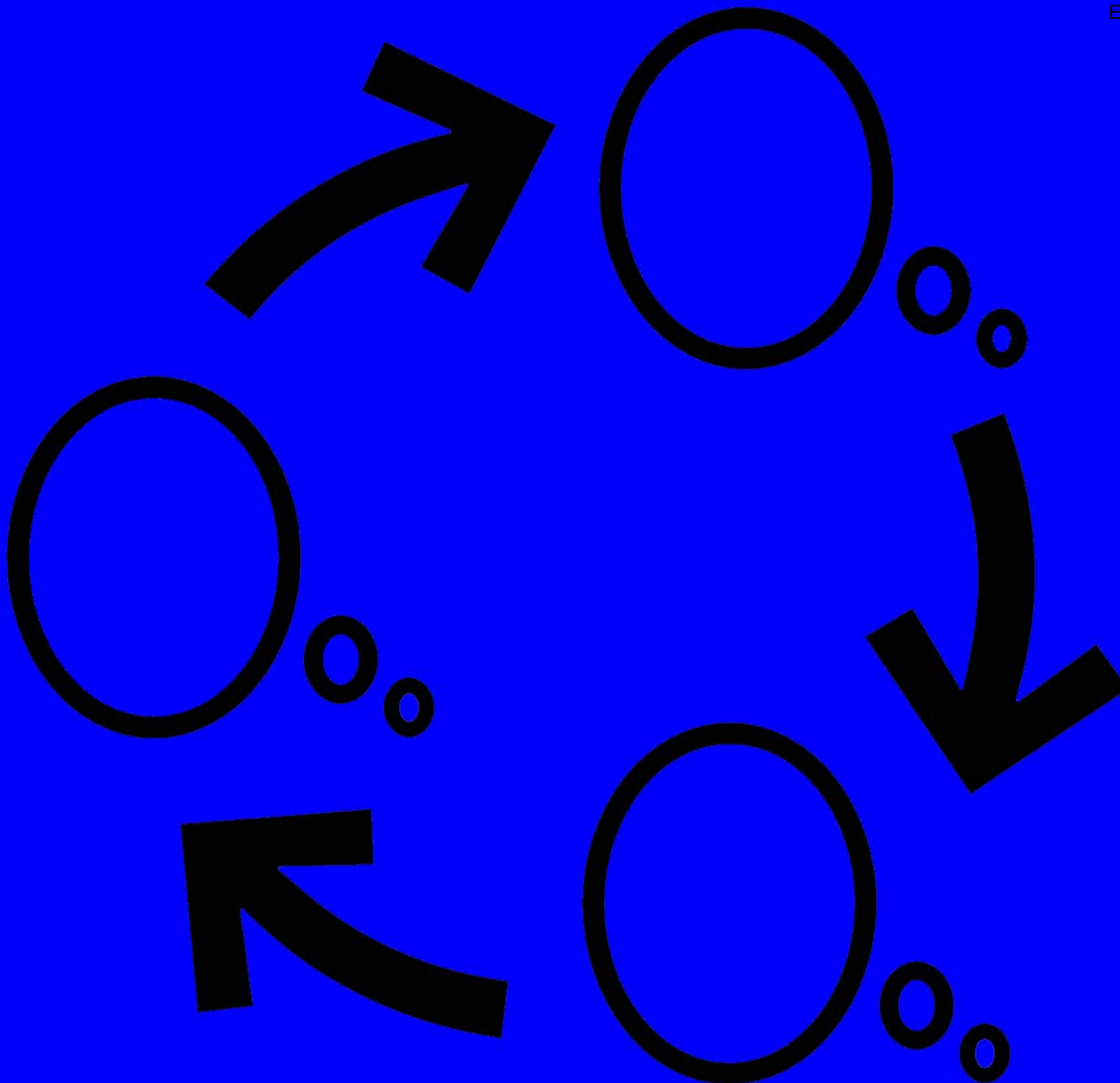
Nothing ! Obligation to control costs and techniques !

ESL-IC 04-10-16

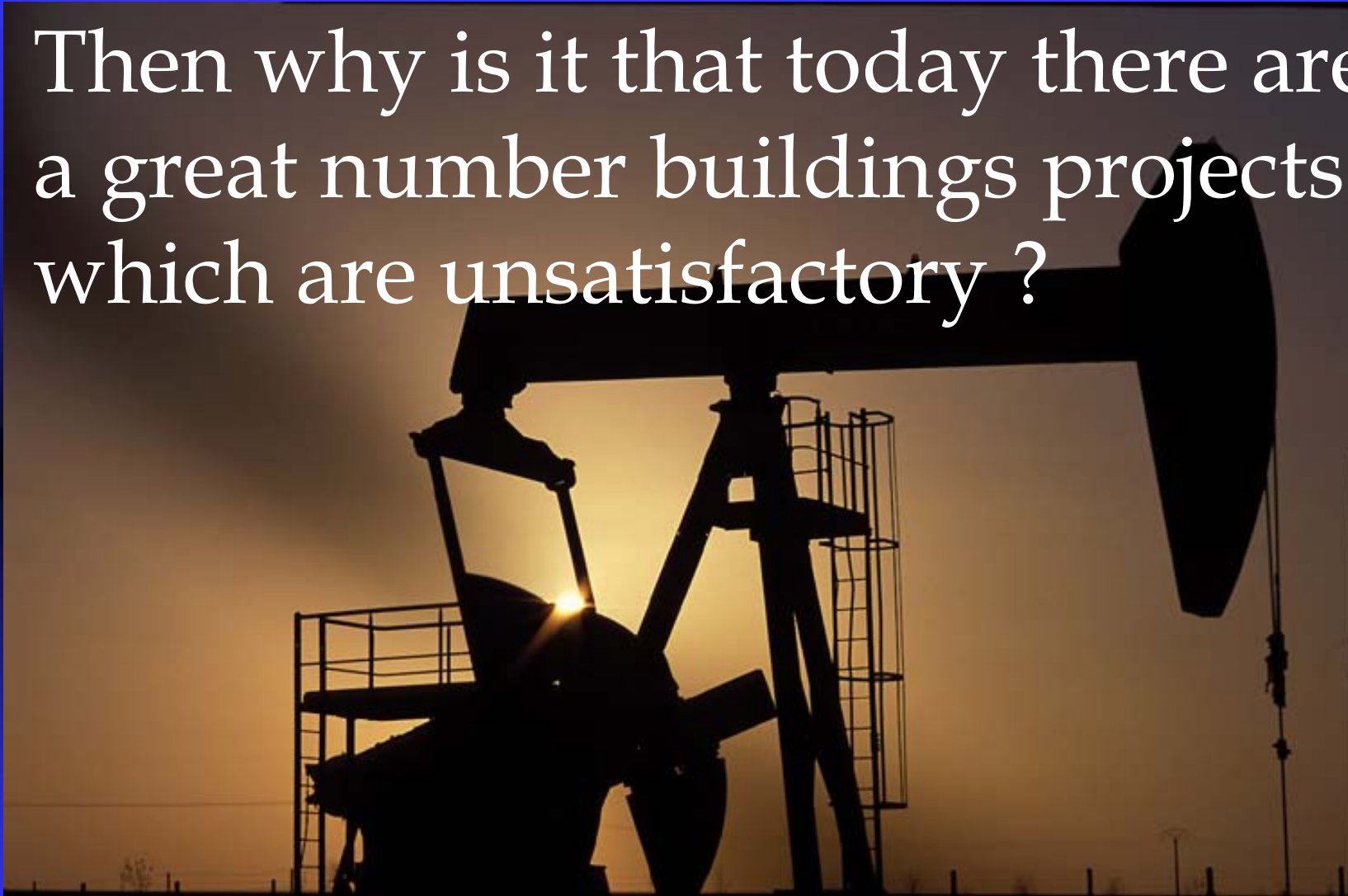


Proceedings of the Fourth International Conference for Enhanced Building Operations, Paris, France, October 18-19, 2004





Then why is it that today there are
a great number buildings projects
which are unsatisfactory ?

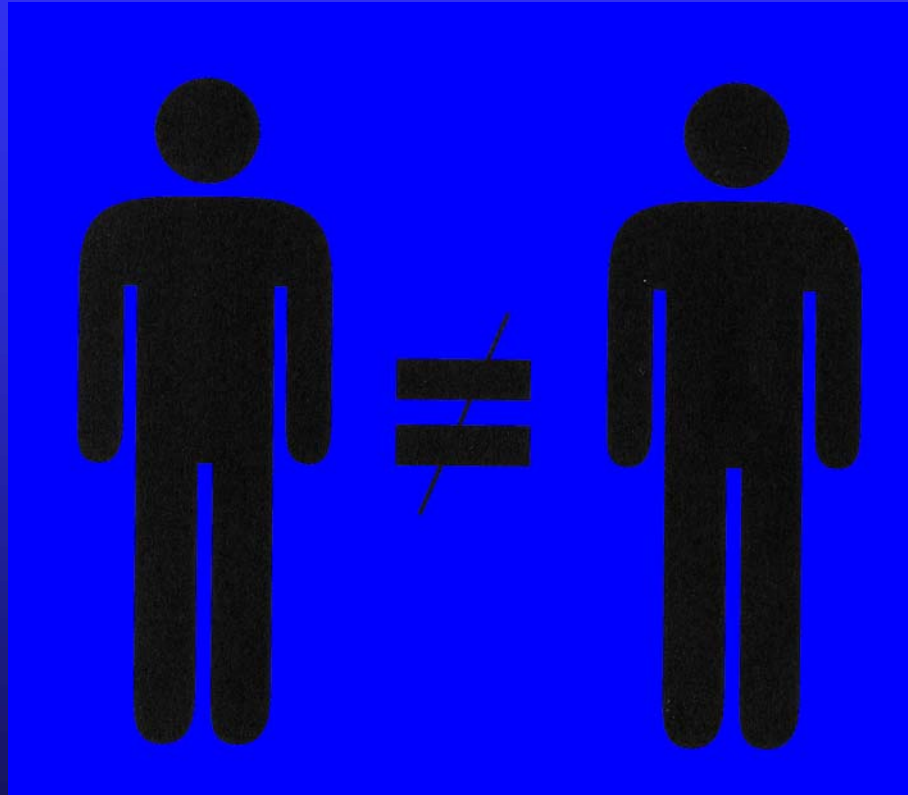




The landlord and the architect
“*are*” and “*must remain*” the
essential partners in all building
projects !

Every project is different !

ESL-IC-04-10-16



Every project is different !

ESL-IC-04-10-16



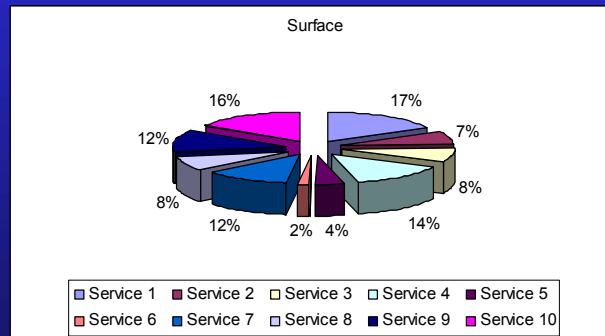
But each project follows the same stages

Proceedings of the Fourth International Conference for Enhanced Building Operations, Paris, France, October 18-19, 2004

michel rouillet architecte d p

Great steps in the building process

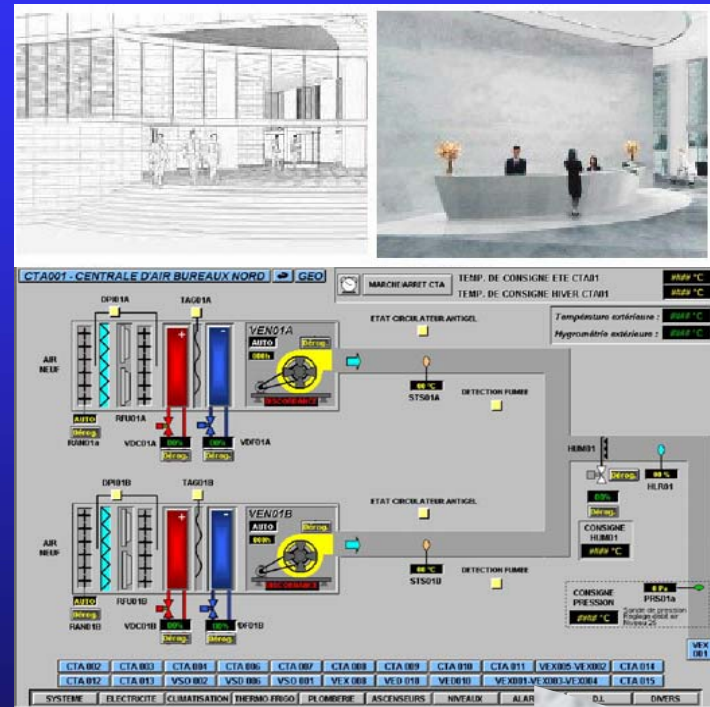
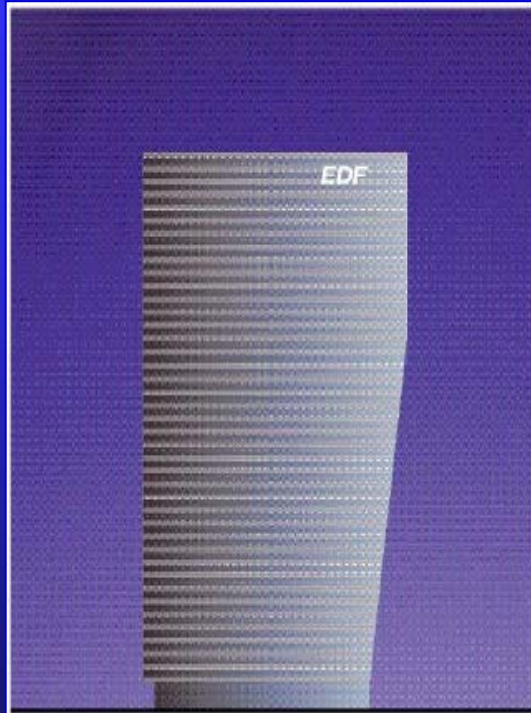
ESL-IC-04-10-16



legal and financial set-up

Great steps in the building process

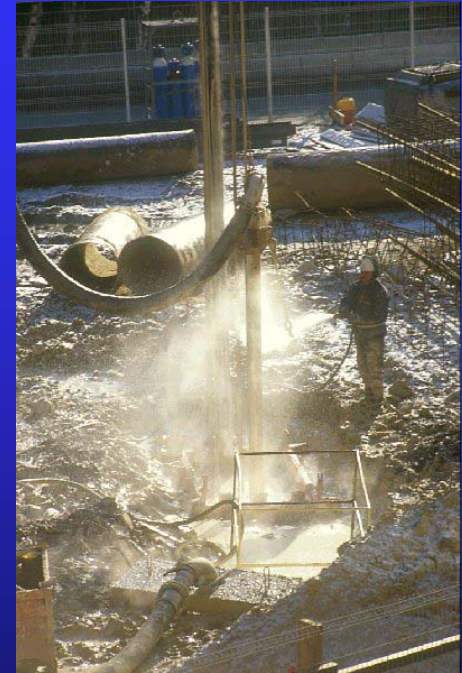
ESL-IC-04-10-16



architectural & technical conception

Great steps in the building process

ESL-IC-04-10-16



Building site

Great steps in the building process

ESL-IC-04-10-16



Facility management

Great steps in the building process

ESL-IC-04-10-16



PB6 tower, mastering of complexity



How to consider the success of
a project within a global
perspective !

PB6 tower, mastering of complexity

How to create an
untroubled
relationship (*i.e.*
harmonious) by sharing
the same long term
vision !



Chronology

- Obtaining Building Permit

: 19/12/1996

- Purchase of Constructing Rights

: 29/05/1998

- Signature of Building Promotion Contract

: 29/05/1998

- Signature of Construction Contract

: 03/12/1998

- Start of building

: 11/12/1998

- Length of construction work

: 29 months

- End of construction

: May 21, 2001



24.000 m² of façade

2.000 kilometers of cables

75.000 m²

300.000 m² total of unavail

45.000 sockets

14.000 floor plans

100.000 tons

42.000 m³ of cement

30.000 florescent tubes

42.000 m³ of excavation

An abundance of participants and interests



An explosive relationship ?

Création of a “supervising committee”



- Conception of architecture methodology.
- Aid to determine the limitation and general and particular requirements
- Technical and financial supervision
- Quality control
- Benchmarking
- Preparation of Financial Reports
- Legal set-up
- Follow-up of project conception
- Supervising of construction
- Technical management and energy economic

Computer Aided Facilities Management



- *Promote the installation of management tools and numeric floor plan systems.*
- *Prepare long term management.*
- *Benchmarking.*

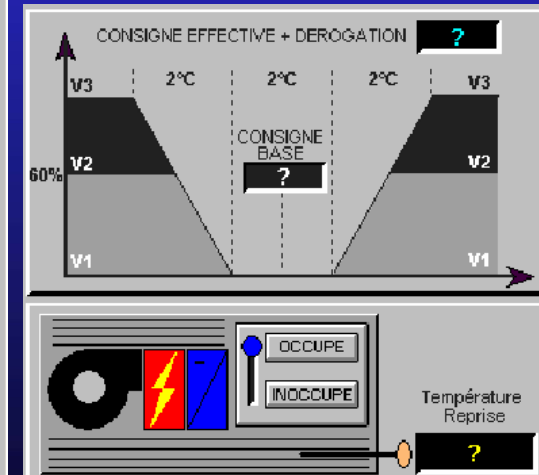
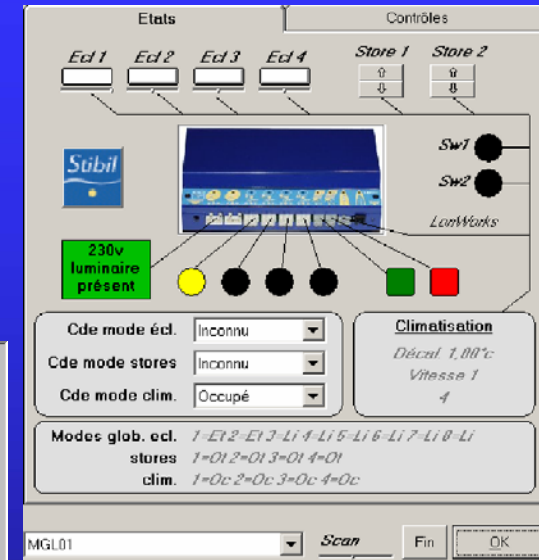
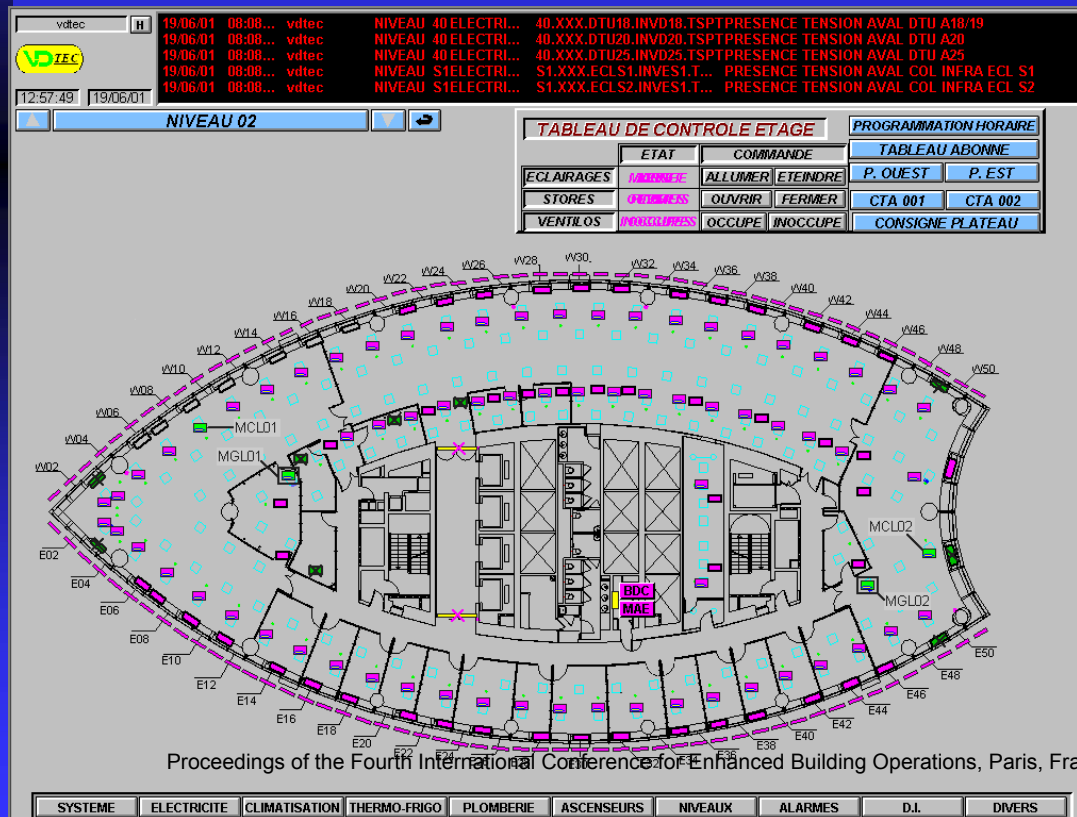
Some « technical elements »



Proceedings of the Fourth International Conference for Enhanced Building Operations, Paris, France, October 18-19, 2004

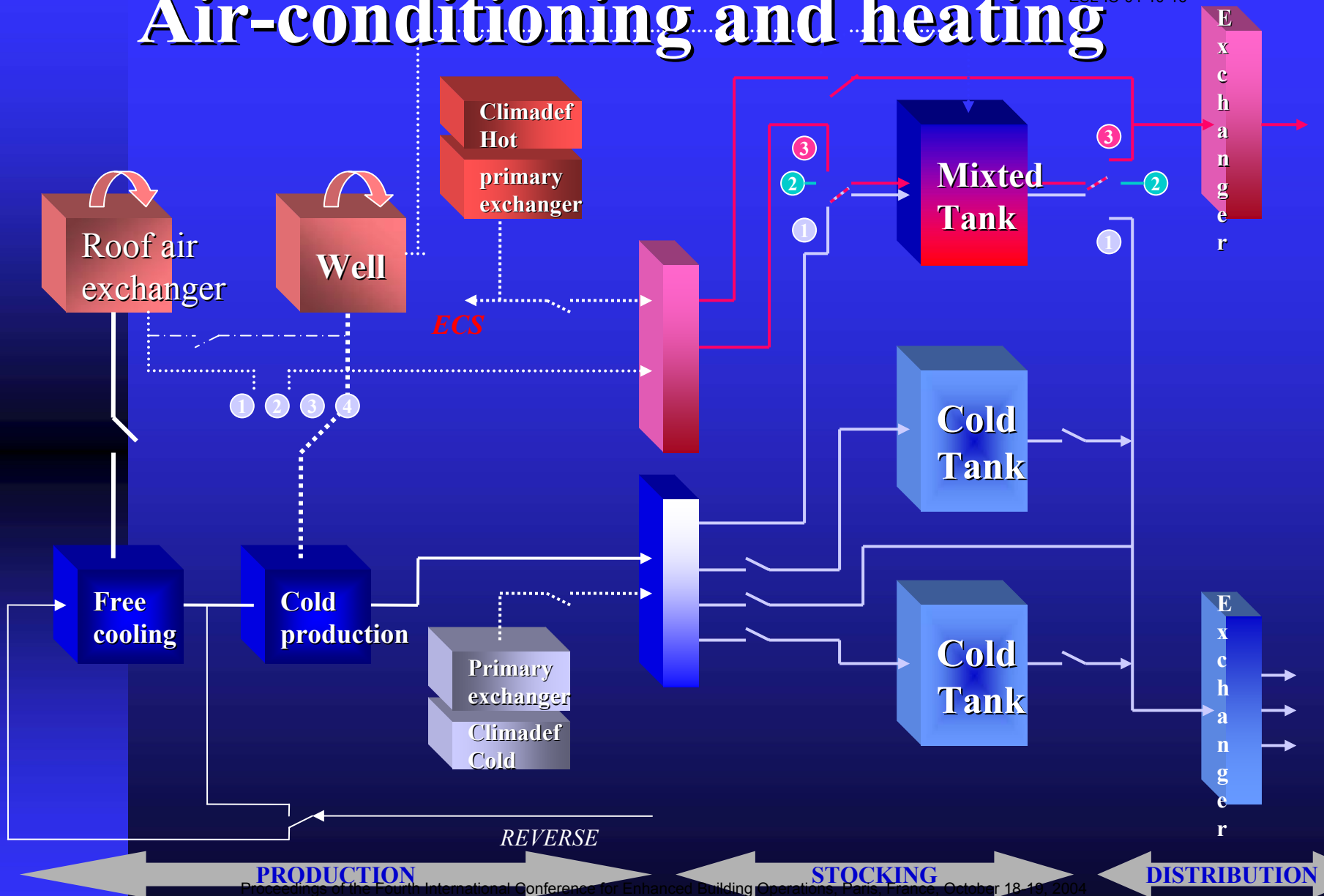
Elements Individually controlled

- 3 000 air-conditionners fan-ventilator
- 5 000 Blinds
- 10 000 Lights



Air-conditioning and heating

ESL-IC-04-10-16



PB6 Tower, Mastering of the building complexity

Assessment :

- € Excellent financial results for the owner
- € Low rent for the occupant
- € Low cost for facility management



PB6 Tower, Mastering of the building complexity



Construction completely
satisfactory,...

But the adventure
continues !

*Architecture, is
petrified music!*

(Goethe)



Illustrations :

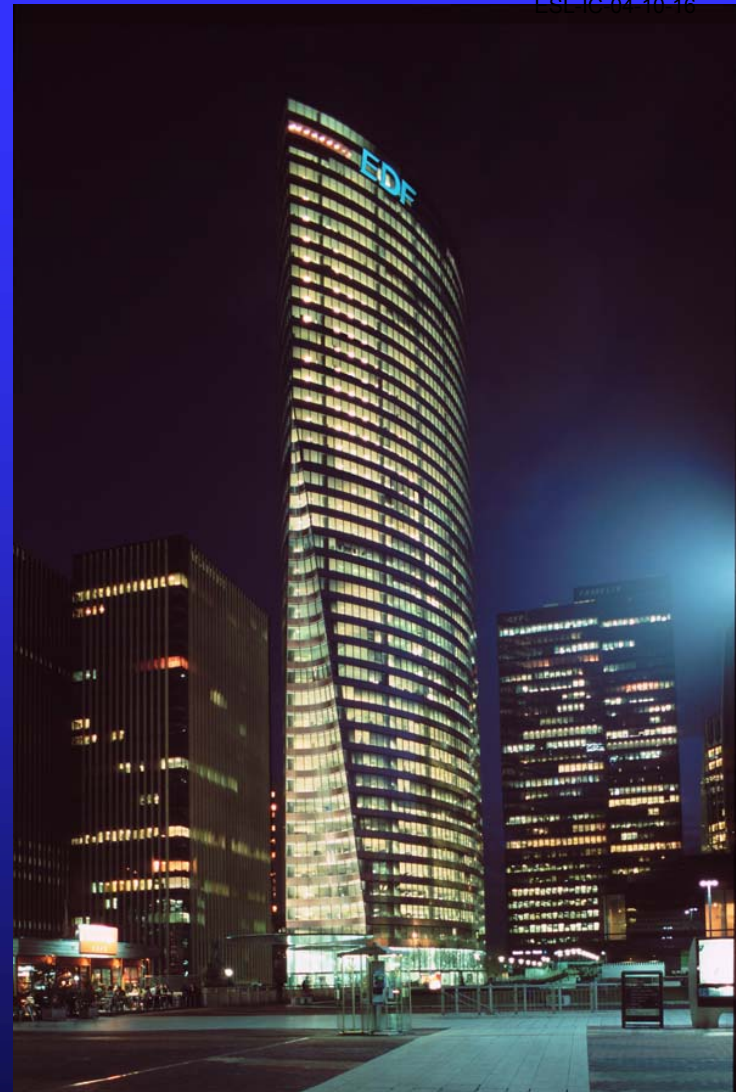
Coup de Soleil

Pippo Lionni

Pei, Cobb & Freed

Groupe PSA

Michel Rouillot



Le Genre humain n'a rien pensé d'important qu'il ne l'ait écrit en pierre. »
Victor Hugo

Proceedings of the Fourth International Conference for Enhanced Building Operations, Paris, France, October 18-19, 2004